

REMARKS/ARGUMENTS

Claims 1-20, 22 and 23 are present in this application. By this Amendment, claim 20 has been amended, and claims 21 and 24 have been canceled. Claims 3, 7-16, 19, 22 and 23 have been withdrawn from consideration by the Examiner. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

The drawings were objected to under 37 C.F.R. §1.83(a). The Office Action contends that features of the invention specified in the claims are not shown in the drawings. With regard to the “details of the lift system being coupled between the work platform and the mast,” Applicants note that no such “details” are defined in the claims. Rather, claim 1, for example, defines a lift system coupled between the work platform and the mast, the lift system effecting raising and lowering of the work platform on the mast. This coupling is shown schematically in Fig. 13. With regard to the “support surface,” claim 1 recites that the mast lift is a portable stand-alone unit, either free-standing or supportable against a support surface. Under 37 C.F.R. §1.83(a), since a free-standing unit is shown in Fig. 19, Applicants submit that the drawings satisfy the regulation. With regard to the “safety railing,” the railing is shown in Fig. 19. Finally, with regard to the “power pack,” this feature of the invention is shown in Fig. 13. Withdrawal of the drawing objection is respectfully requested.

The specification was objected to with regard to the claimed modular construction of independent components of the mast lift. Without conceding this objection, reference to the “modular construction” has been deleted. The Office Action further contends that the specification does not “provide support to describe in detail the connections involved” As noted in paragraph [0048], however, the specification describes that the lift system 208 includes a known Weston-type brake coupled with a gear train to reel in and out a cable or belt. With

reference to known structure, Applicants submit that those of ordinary skill in the art would appreciate the details of the connections involved, and a specific description of the details is not required. Moreover, the specification in paragraph [0041] describes that the lift system is coupled between the work platform and the mast and provides that "any suitable lift system may be used with the mast lift of the present invention." A preferred arrangement is described where a worm screw drives a gear train that takes in and reels out a lifting cable or strap. With reference to the system schematic shown in Fig. 13, a power source 52 drives one or more worm screws via operator control through a power source coupling 212 to raise and lower the platform 14 on the mast. Withdrawal of the objection is requested.

Claims 1, 20 and 24 were rejected under 35 U.S.C. § 112, first paragraph. With regard to claim 20, without conceding the rejection, reference to the independent components being interchangeable with like components such that the mast lift comprises a modular construction has been deleted. With regard to claims 1, 20 and 24, Applicants respectfully submit that those of ordinary skill in the art would readily appreciate the connections between the known Weston-type hoist and the manner in which it is connectable to the mast and platform. The specification describes in paragraph [0041] that any suitable lift system may be used with the mast lift of the invention. The specification further describes that in a preferred arrangement, a worm screw drives a gear train that takes in and reels out a lifting cable or strap. Applicants submit that from this description and reference to known components, those of ordinary skill in the art would readily understand the manner and process of making and using the invention. Withdrawal of the rejection is requested.

Claim 20 was rejected under 35 U.S.C. § 112, second paragraph. With regard to the claimed "base unit," Applicants submit that the arrangement of the claim makes it clear that the

base unit includes the three components defined as a mast, a stand, and a platform lifting system. Notwithstanding, claim 20 has been amended as suggested by the Examiner to define “a base unit including a mast, the base unit also including a stand, and the base unit also including a platform lifting system.” With regard to the phrase “interchangeable with like components,” this phrase has been deleted from claim 20. Moreover, reference to “an optional power source” has been amended to define a power pack. Applicants submit that claim 20 now more clearly satisfies the requirements of 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is requested.

Claims 20 and 24 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 3,752,263 to Thevenot. Without conceding this rejection, claim 20 has been amended to include the subject matter of claim 21, which does not form part of this rejection, and claim 24 has been canceled. Applicants thus submit that the rejection is moot. Withdrawal of the rejection is requested.

Claims 1, 2, 4-6, 17, 18 and 21 were rejected under 35 U.S.C. §103(a) over Thevenot. This rejection is respectfully traversed.

As recognized in the Office Action, Thevenot lacks at least the claimed machine weight of the mast lift being less than 200 pounds. The Office Action contends, however, that this feature of the invention “would have been an obvious matter of design choice.” To the contrary, machine weight cannot be simply arbitrarily “designed,” but rather is a function of an assembly of materials capable of performing intended functionality. This standard is even more difficult to accomplish when considering safety regulations for such devices. When considering the weight of machine components, it is not merely “design choice” for a manufacturer to simply select the weight of the assembled components.

The Office Action further contends that “discovering an optimum weight would have been a mere design consideration,” and that “such a modification would have involved only routine skill in the art to accommodate different weight requirements depending on the desired characteristics of the mast.” Applicants respectfully submit, however, that substantial engineering input was required in order to achieve the defined weight requirement of the invention.

The prescribed motivation of making the mast “as light as possible simply to make its transport easier” is idealistic but structurally impossible with the Thevenot structure. Indeed, the motivation for such a conclusion could only be derived from Applicants’ own specification, and such hindsight is insufficient to support a conclusion of obviousness. The Office Action is confusing an obviously desirable feature (low weight and portability) with structural obviousness. The materials disclosed in the Thevenot structure, however, cannot be ignored. Applicants believe they have achieved significant advantages over all existing systems by constructing the claimed mast lift within a specified weight parameter, and Applicants submit that the dismissal of this important feature of the invention as merely obvious is entirely misplaced.

Although Thevenot is silent with regard to machine weight, an analysis of the Thevenot structure reveals that using even the lightest materials available, the Thevenot structure would weigh considerably more than 200 pounds. Applicants conducted an analysis of the Thevenot structure, and from this analysis, it is clear that the device disclosed in the Thevenot patent could not be modified to meet claimed 200 pound parameter. The device disclosed in the Thevenot patent using steel would weigh over 650 pounds, and using aluminum materials, the Thevenot device would weigh at a minimum approximately 300 pounds. The data used to support this

analysis is attached as Appendix A. For proper comparison and without limiting the claims of the present application, the data was based on structure in the Thevenot patent to reach a height of a 14-foot platform. The calculated weight amounts do not include many of the parts shown, which of course would add further weight to the Thevenot structure.

Applicants thus respectfully submit that the rejection of independent claims 1 and 20 is misplaced.

With regard to the dependent claims, Applicants submit that these claims are allowable at least by virtue of their dependency on an allowable independent claim.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 5 and 6 were further rejected under 35 U.S.C. §103(a) over Thevenot in view of U.S. Patent No. 5,522,583 to Martin. Without conceding this rejection, Applicants submit that the Martin patent does not correct the deficiencies noted above with regard to Thevenot. As such, Applicants submit that these dependent claims are allowable at least by virtue of their dependency on an allowable independent claim. Withdrawal of the rejection is requested.

In view of the foregoing amendments and remarks, Applicants submit that the claims are patentable over the art of record and that the application is in condition for allowance. Should the Examiner believe that anything further is desirable in order to place the application in condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Prompt passage to issuance is earnestly solicited.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith

CAMPBELL et al.
Appl. No. 10/594,666
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(or with any paper hereafter filed in this application by this firm) to Deposit Account

No. 14-1140.

Respectfully submitted,

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Thevenot Lift Weight Analysis

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APPENDIX A

Shown for construction in Steel and also if structure was Aluminium
14ft height

Notes: The Thevenot unit is neither light weight nor portable.

Part	Part No	Area 1	Area 2 # composite shape	Total Length	Quantity	Volume = (A1+A2)x Length	Weight Assuming Steel Construction (Kg)	Weight Assuming Aluminium Construction (Kg)
Lower verticals - L shape	39 & 15A-4 of	0.0003	0.0003	4.2672	4.0	0.0005	65.71	23.04
Lower horizontal - L shape	17 - 4 per level, 5 level	0.0003	0.0003	0.4800	20.0	0.0048	36.96	12.95
Lower angle braces	16 - 4 per side, 4 sides	0.0001	0.0001	0.4800	16.0	0.0016	7.39	2.59
Base frame - sides	10	0.0002	0.0006	1.4000	2.0	0.0020	15.09	5.29
Base frame - lengths	11	0.0002	0.0005	2.0000	2.0	0.0020	21.56	7.56
Platform rails	21,20,22,26,24	0.0003	0.0006	1.0000	14.0	0.0045	34.50	12.10
Motor Platform	26,22	0.0006	0.0006	3.0000	1.0	0.0018	13.86	4.86
Rollers for platform to travel	24,25	0.0079	0.0079	0.0030	8.0	0.0002	1.45	1.45
Coupling	25	0.0079	0.0079	0.1000	1.0	0.0008	6.05	6.05
Motor	27						15.00	15.00
Sets (18)							3.90	3.60
Roller Frame	24A	0.0015	0.0005	1.0000	2.0	0.0040	14.60	5.60
Platform wood (assumed)	19						5.60	5.60
Cross rails	17A	0.0003	0.0003	0.5000	4.0	0.0010	7.70	2.60
Chain Pinions	33,34	0.0079	0.0079	0.0020	3.0	0.0009	0.36	0.36
Chain	39 @ 1kg per metre				8.0000		8.00	8.00
Emergency Brake	26						15.00	10.00
Rollers at base of device	15	0.0177		0.0500	2.0	0.0018	13.61	4.77
Cable for power to platform	Not incl						Not incl	Not incl
Other parts	Not incl						Not incl	Not incl

Total Weight of Design

301.85 Kg
665.02 Pounds

136.14 Kg
300.13 Pounds

NOTE: Dimensions of each part has been estimated using a scale taken by assuming a 40 inch high platform rail. Areas and volumes have not been calculated by hand to ensure as much accuracy as possible for the estimate. Note that many parts have not been included in the Thevenot unit weight - so the total weight is likely to be well above that noted here. The key point is that even if the Thevenot unit was constructed in aluminium, it would weigh well in excess of 200lb, and it is not 'portable' in a meaningful way. The JLG mast lift machine is much lower weight than Thevenot (even if Thevenot is made from aluminium), and is truly portable while meeting modern safety standards.